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ONE MATCH

H. B. Conyers

The Photographic Times

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STORY TELLING PHOTOGRAPHY.

An Appreciation of H. B. Conyers' Work.

BY SIDNEY ALLAN.



H. B. Conyers

THE ALLEY BOSS

blacks

In amateur photography Conyers occupies about the same place as the venerable J. G. Brown in the domains of genre painting, and his depictions are every bit as clever, spirited, carefully studied and composed as those of the "Raphael

HE work of H. B. Conyers, of Urbana, Ohio, has been known to amateurs for years. He has never been much of an exhibitor, but we have frequently seen reproductions of his various efforts in popular as well as photographic magazines, and learned to associate his name with pictures of street urchins, news-boys, and boot-

of the Bootblacks," as Brown is sometimes called by his malicious colleagues. They both appear to be unable to get away from that kind of subject. At least that is the impression the public gets from their work. And yet Conyers, as little as Brown, devotes himself entirely to this well-known and popular specialty. On the contrary they are both versatile and treat all kinds of themes. Conyers does excellent landscapes and farm studies. Every summer when August comes (he is a jeweller by profession) he puts away all business for three or four weeks, and roams about the country with the camera. Yet the results of these rambles, no matter how interesting they are, can not compete in popularity with his story-telling pictures. His talent is seen to the best advantage with the latter, they seem to suit best his studious temperament. When a new idea for a picture occurs to him, he first writes it down, thinks about it perhaps for weeks, makes a rough sketch of it when he has planned it out to his liking and files it away until he finds suitable models who will enable him to carry out the composition already completed in his mind.

The result is always a picture such as



A SICK CHUM

Copyrighted 1908. H. B. Conyers

appeals to the general public. It may not be as pictorial, or of such high finish as the work of other noted amateurs, but there is always a human interest in it.

There are many amateurs—as there are painters—who look down upon story-telling as something unworthy of “artistic photography.” By this they do not altogether mean that minute study of details and exact presentation of facts make the kind of picture inferior as works of art, but rather that they lack those technical and esthetic qualities which are associated with the most advanced phases of photography.

The hatred for story-telling pictures has always seemed a rather futile agitation to me. I hold the opinion that every good picture must be something of a story-telling picture, the whole difference between the phase of art and another lying solely in the treatment. One man will tell his story frankly, the other more indirectly, one photographer, putting the accurate depiction of life as he

sees it above mere technical accomplishments, will indulge in realistic interpretations, while a second will be more interested in tone and line and decorative arrangement and proceed accordingly. And yet there is in both, the same careful study, the same striving to get at the secrets of certain types of humanity, the same desire to record completely and definitely their special traits.

There is room for all, and nothing is more illogical and unjust than to criticize a man adversely simply because he does not show our point of view. The critic's sole business should be to investigate how far an artist has succeeded or how far he has failed in carrying out what he attempted to do. Conyers wants to tell stories and he generally manages to tell them. A picture like “One Match” may not appeal to longhaired esthetes with clerical collars and abnormal ties, yet it will give pleasure to any one with any sense of humor left. Pictures that can draw a smile are by far too scarce in the



THE SMASHED FINGER

H. B. Conyers

world of ours. This one surely does. How well the two little scamps are posed. The way they are seated, how they hold their papers and how their interest is concentrated in the one match in their possession is all as easy and natural as can be imagined. They are in their working clothes (the photographer always insists on that point) clothes in which they are at home, they apparently have forgotten all about the camera, and are solely interested in their little "act." Also the background, some secluded nook away from the busy thoroughfares, suits the group to perfection. A quiet humor pervades the whole scene.

The pictures, "A Sick Chum," and "A Smashed Finger," are more ambitious, but in my opinion not quite so successful. In one picture there is too much background (too many confusing details) and in the other one too little. There is but little fault to be found with the arrangement of the figures, but somehow they do not pull together as well as they should.

And there could be more expression of sympathy, interest, and commiseration on the faces of the little chums who have accompanied the patient to the doctor's office.

I am very fond of his single figure studies, and sometimes think that they show his style of character delineation to the best advantage. The "story" is also in them the principal thing, but they contain other qualities of equal attraction. The nature of the subject makes concentration of interest easier and permits broader pictorial treatment.

Both "A Slim Christmas" and "The Alley Boss" are interesting as light and shade studies. The latter is a little masterpiece in its way.

Of quite a different nature is "At the Junction." This picture is purely illustrative, and an excellent example of what photography might accomplish in this hitherto but little explored field of portraiture.

Conyers is one of the few amateurs



AT THE JUNCTION

H. B. Conyers

who is wide awake to the fact that amateur photography could be made both *practical* and *profitable*. He has pursued his own path, and to a certain degree has made it so. He has received the grand award of \$100 in *The Youth's Companion* twice, also once the second award and seems to find a ready sale for his work from calendar and publishing houses, The Eastman Kodak Company, etc. I would advise him to go into illustration. There is a big opening for the right man. Of course photographs

have not yet the value of black and white illustrations. Conyers complains that "ten dollars seems to be about the limit for a good study and that such remuneration is hardly enough for the bother." I heartily agree with him. But I believe a man who would assert himself and deliver the right goods could easily get more. The editors are continually on the look out for novelties, but it is necessary to get into personal touch with them to convince them and to let them give the photographer an order. Clarence H.



A SLIM CHRISTMAS

H. B. Conyers



THREE PARDS

H. B. Conyers

White was paid as much as a regular illustrator could have received for his "Eben Holden" illustration. Coburn has received as much as twenty-five dollars per print for the mere right of reproduction, and Eickemeyer has been frequently paid \$75.00 to \$125.00 for a set of six or eight landscape photographs. So the beginning has been made. It was, however, hardly illustration in the proper sense of the word. By this I mean none of these men went about it as a regular illustrator would. They all waited for special opportunities, and were not ready to accept the regular routine work of illustrating stories, making head and tail series, special series, cover designs, etc., just as they came along. A man who

could do that would be successful; it might be up-hill work at the start, but he would win out at the end.

My readers may wonder how I come to make this dissertation, as long as the real object of this article is the writing of an appreciation of Conyers' work which made me think of this. It is easy enough to appreciate his prints. They explain themselves; he is too good a storyteller for that. But the lesson they teach may not be appreciated, and it is for that reason that I branched off from the main subject.

There is no reason why amateur photography should not be made to pay. It is a delightful pastime to be sure, but why not get back an equivalent for the

labor and money spent. Surely there is no objection to that. Occasional prize winning will not do it. There are too many Richmonds in the field. Why not widen the field of action? You, my reader, can do it just as well as anybody else. Study the Conyers pictures on these pages, follow his example, find something to photograph that can be used, that will give pleasure to wider

circles than you have reached hitherto, that will give you something in return for all the pains you have bestowed upon your precious efforts. You will return with new enthusiasm to your work. It will prove an impetus to do better and better in the future, and that is, after all, the ambition of every amateur who takes photography half ways seriously.



ON GUARD

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PORTRAITS AT HOME.

BY BURTON H. ALLBEE.



UNQUESTIONABLY the living model has more of attraction in it than any thing else the photographer, amateur or professional, undertakes. While landscapes permit some choice in the selection of subject, the portrait permits the display of individuality beside which landscapes are as nothing. Then, too, the photographing of landscapes compels the worker to go afield, which is not enjoyable or possible for all.

But from the chalk and soot production of the beginner, showing no gradation of tone and no beauty of composition to the artistically posed, properly lighted and sufficiently exposed portrait of the professional, seems too great a gulf to cross; yet, substantially as satisfactory results are possible in an ordinary room, working with an ordinary camera, as in the professional's studio working with the most expensive apparatus. In fact, all of us have seen amateur portraits which contained more of the elusive thing which may be termed personality, that quality which looks out of a picture and discloses some of the character of the sitter, than any professional portrait one ever saw.

To make good portraits of one's friends is possible. Moreover any amateur can do it. The expense of preparing for it is slight, in many instances limited to a few cents, and it merely remains to understand what is required to secure the results one desires.

A camera with a long bellows or a supplemental lens is necessary. With a short bellows it is impossible to make the image on the plate large enough, con-

sequently the amateur must have one or the other. But the cost of either is so small that that need not deter one. Of the two the long bellows is better since it increases the facility of the camera for other purposes.

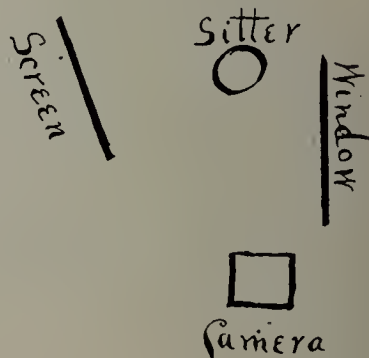
Any room is suitable that has no shade to shut off the light from the window. An unobstructed north or west light is best, but any other direction will do.

To make a plain three-quarter view of the face provide yourself with a background. One that will answer all purposes can be bought for 50 to 75 cents, if one searches for bargains. A white cloth screen three or four feet square and a piece of cheese cloth to cover the window.

Arrange the window to cover it from the bottom up as high as the sitter's head, or a bit higher in most instances, which will give the shadows the proper angle. Place the sitter near the side of the window farther from the camera and the width of the window away from it. Diagram No. 1 shows the relative position of the sitter and the pieces of apparatus.

Diagram No. 1

Background





REGULAR PORTRAIT

Place sitter and apparatus as in diagram No. 1

Place the sitter in an ordinary chair facing the camera. Then turn the face toward the light until the ear on the shadow side is just visible. Place the screen in a position to render the shadows on the dark side of the face luminous. Give ample exposure. If under a north light fifteen to twenty seconds will not be too much. Don't be afraid of exposure. It is what will save your negatives from chalk and soot and will result in a well graded negative in which tone values will be truthfully rendered.

Obviously modifications of lighting and pose may be obtained by slightly changing the relative position of the sitter with reference to the light. Also the changing of the face and the screens will bring about a change of lighting which will modify the appearance of the resulting portrait. These modifications and changes the worker can discover for himself, and the interest in the work will in-

crease in direct ratio to the effort exerted in learning what will happen when some slight change is made.

A good way to do this is to obtain a bust and work with that. It will sit still in any position and will never get tired, nor will it complain about the crankiness of the operator.

While the making of plain portraits is a joy to one's self and one's friends, there is almost always more or less desire to do a little fancy work, and the wish is perfectly justifiable. It adds zest to the pursuit of the elusive picture and increases the worker's enthusiasm.

Diagram No. 2 illustrates the position for the apparatus in what is known as line lighting. Place the sitter with the side of the face toward the window and arrange the screens as shown. Place No. 1 in front of the sitter so as to reflect the light into the face. Place No. 2 at a slight angle so as to illuminate the



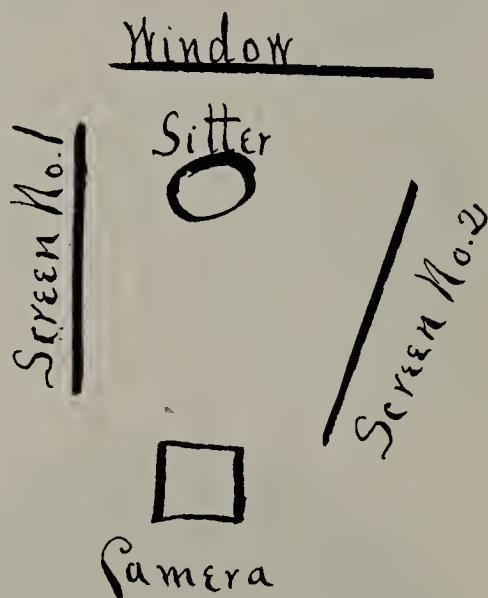
LINE LIGHTING

Place sitter and apparatus according to diagram No. 2

shadows, and place the camera so the lens will look squarely at the shadow side of the face.

A longer exposure will be necessary since the subject is almost wholly in the shadow, and sometimes it is very dark. But the object is to have the profile outlined in light, as shown in the accompanying portrait, which was printed a bit too dark to accentuate this particular feature.

Diagram No. 2.



Neither of these operations are complicated, and with the help of the accompanying diagrams the apparatus can be properly arranged by any amateur, and corresponding satisfaction will result.

Development, with reference to obtaining a soft negative, free from the chalky whites and heavy shadows which mar so many portraits, has never received the consideration it deserves. Por-

trait plates can be developed with the formula for landscapes, but the solution should be diluted. This will help in making the negative soft, but a developer especially prepared will do more. Here is a formula which works satisfactorily and opens the way for soft negatives with good gradation. If the plates are undertimed it will be found good. If they are correctly timed it is good, and by diluting it can be used for overtimed plates.

The formula follows:

Eikonogen	125 grains.
Sodium sulphite.....	250 "
Sodium carbonate.....	250 "
Potassium bromide....	2 "
Water	10 ounces

Heat about two-thirds of the water to boiling in which dissolve the sulphite and eikonogen. Both can be put in together, if desired. When cold the carbonate and bromide previously dissolved in the remaining water should be added. If the bottles are filled and well stoppered this solution will keep for some time, but it is better made fresh each time it is wanted.

For correctly exposed plates dilute with an equal volume of water, or more, if necessary. For extreme under-exposure omit the bromide and dilute the solution. When the detail is out finish in the strong solution to secure density.

Used with care this developer will yield the most delicate results possible, and will insure a soft pleasing negative where the regular developer would give only harsh and more or less unsatisfactory results.



THE MONTHLY COMPETITION.



THE ability to judge and criticize the average run of pictures, or, say, rather entries, in photographic competitions, as a rule does not require a Heaven-born genius. The good ones almost select themselves as they stand out so prominently from the others, which usually consist of a collection of the same old errors in exposure, lighting, posing, and what you will. It seems at times a most discouraging and hopeless task to attempt to educate the amateur photographer as to what constitutes a true picture, and how to recognize one when he bumps into it, and how to secure it after it has been discovered. There are so many "near pictures," the "almost goods," that just a step to the right or left, or a little toning down of an obstreperous light would have made good. Yet we must be taught if we are to advance, and if your critic grows a bit tart at times you must forgive him, and understand that it is only his eagerness to help you that makes him express himself forcibly. It is so much easier to say nice things, to jolly along and make you feel good, but unless you deserve to be made to feel good, such criticism would be worthless. Your critic and the judges have gone through this month's entries again and again, and have failed to find five prints worthy of the high standard of merit set by THE PHOTOGRAPHIC TIMES.

It means something to receive even Honorable Mention in these competitions, and unless the entries are up to our standard, no awards will be made. This is to *your* interest, we want you to feel that you are travelling in good company and that when finally the cherished award

comes to you, as it will if you study, you will feel that the effort has been worth while. Aside from the mere prize winning, you will have attained a proficiency in your work that could not have been secured in any other manner. Fortunately, if we did not find prize winners, we did find some unusually good subjects for criticism which we trust will be of benefit to you all. Right here we wish to thank our contestants for their willingness to have their prints criticized—it helps not only us, but every reader.



EVENTIDE

H. S. F.

We have selected as our first subject for criticism the entry entitled "Eventide," by H. S. F. This is intended as a portrait study of a fine sturdy old man—but why the title? Though his hair is white, and he uses a cane, he looks good for many a year to come—and to still further avoid the title, the picture was taken in brilliant sunshine—so it would appear that eventide was a good way off from all standpoints. So much for the title, now let us see what else we can find that might be improved. In the first place a good deal of valuable space has been wasted by the absolutely uninterest-

ing surroundings, and with all that space to utilize, why amputate the old gentleman's feet? A much better picture would have been secured by taking the picture vertically on the plate, and spacing it so the subject would have been *all* on the plate, with sufficient foreground to support him with dignity. Stop 64, why, oh why!—a wide open lens would not only have materially shortened the exposure, but would have afforded softness, and roundness to the portrait, but would also have killed the background of fatal straight lines. Notice one more thing please, how the eye leaves the face of the man, the principal point of interest, and wanders helplessly up and down the curving line of the suspended hammock. Every one of these errors could have been avoided without any effort whatsoever and a fine portrait of a handsome old gentleman easily secured. Before you make an exposure, just stop and think a moment.

"A Day in Spring," by P. K., possesses some pictorial qualities, but escapes the picture classification by several quite obvious errors. In the first place the com-



A DAY IN SPRING

P. K.

position is too crowded, not enough foreground, and there is not sufficient contrast between the cattle and the background to afford any feeling of distance



PORTRAIT

E. C. M.

or atmosphere. It is evident that the maker of this negative, however, gave some thought to his effort before making the exposure, as the cattle are not staring straight at the camera, and the lens has not been stopped down to the distressing needle sharpness stage. Here is the trouble, the attempt was made when the sun was too high to cast relieving shadows, and the view point was badly chosen as the eye has no means for leaving the picture, there being no conducting line toward the vanishing point attempted to be shown by the faint bit of sky in the upper right hand corner, which also is actually lower in tone than the whites on the skin of the cattle in the foreground.

Let me next consider the portrait by E. C. M. A very pleasing subject and better handled than many attempts at amateur portraiture, still it has room for a good deal of improvement. In the first place the exposure 45 seconds was far too long to warrant either a natural

pose or expression, and it is a wonder the subject, we almost said victim, stood it as well as she did. A wide open lens and plenty of light from the right direction is what is demanded for successful portraiture. A glance at the white waist of the subject so much over-exposed as to prevent any detail from printing out, demonstrates the error in timing. In portraiture the highest light should be on the face, all else should be subordinate. Also the sharp angular lines of the pillow supporting the head detract from the interest. Simplify your composition, give your subject the benefit of



TRAVELLING

C. W.

right. If your conditions are not right, do not waste your plates.

"Traveling," by C. W., is another mistaken effort and can lay no claims to either artistic merit or originality. Surely there are dozens of ways of picturing this attractive youngster without cramping her up in a suitcase, and then placing her directly in front of the incongruous lines of the side of a house. When you are picturing children permit them to assume their own pose, and at least give them the advantage of attractive surroundings.

"A Young Fisherman," by M. G. C., demonstrates a common fault—the lack of simplicity. The young fisherman is in the composition all right, but you have to hunt for him, as there is so much else equal in value to attract the eye. It is



GRASSY POINT LIGHTHOUSE

R. M. E

the shortest exposure compatible with normal exposure, and a vast improvement will at once be noted.

Our next subject for criticism "Grassy Point Lighthouse," by R. M. E., can lay no claim to artistic merit, and is also rather a poor record of fact. The maker states that the photograph was a snap shot and that he either had to have the sky line or the buildings slant. If such were the case, it would have been much better to have left the plate unexposed rather than to have wasted it in this manner. Water does not run up-hill, nor do most architectural structures lean tipsily. Whatever is worth doing, is worth doing



A YOUNG FISHERMAN

M. G. C.

another case of making the photograph first and then seeking a title for it. Had an artist commenced to compose a picture of a young fisherman, he would have made him the most prominent feature of the composition. In this case the tree across the stream is of greater value and to add to it, the lines of the rustic bridge leading from the tree down to the boy, tend to still further minimize the comparative value. The materials for a true picture were at hand, but the maker of the photograph did not make good use of them.

"Sunset on the Logan," by H S., is one of the things every amateur *has* to attempt with about the same results—good clouds and nothing else. It takes more than pretty clouds and a little streak of high light on water to make a picture. In this case no thought has been given to the composition. The stream does not flow anywhere, and the highest light is almost in the center of the print. Naturally, there is no detail in the landscape and we cannot tell whether it is

summer or winter as the stream may be either ice or water for all the eye can determine. If you find a beautiful set of clouds at sunset, try and arrange your landscape to be worthy of them, or else content yourself with simply a good cloud negative and then print them in on a landscape when you find one that is right.

The efforts above criticized all demonstrate very common errors, and ones that should have not been made if the makers had gone out with a definite purpose in view. What is the use of indiscriminate snap shooting—making an exposure just because you have plates to use. Never expose a plate without a definite aim in view. Even then you will make errors sufficient to keep you busy in rectifying them. Walk all around your picture before you make it, study just what to include or leave out. If conditions do not seem just right, wait until they are. Half-way successes are failures.



SUNSET ON THE LOGAN

H. S.

THE PRISMATIC FILTER.

BY L. R. GWYER.

IT would seem almost an impossibility to add anything of interest, to all that has been written, with regard to ray-filters, but there is one species, that I have found useful, that does not seem to be generally known. For want of a better name we will call it the prismatic filter and before going any further, a brief history of the filter in question, may be in order.

About two years ago it occurred to a young optician (Mr. Holbrook) connected with a lens company (The Standard Lens Co.) in Newark, N. J., that, if the sky acted on a photographic plate, about ten times as rapidly as the landscape, a ray filter, graduated in color from 0 to 10 would correct this and give a negative with sky and land in balance. To make a long story short, he immediately start-

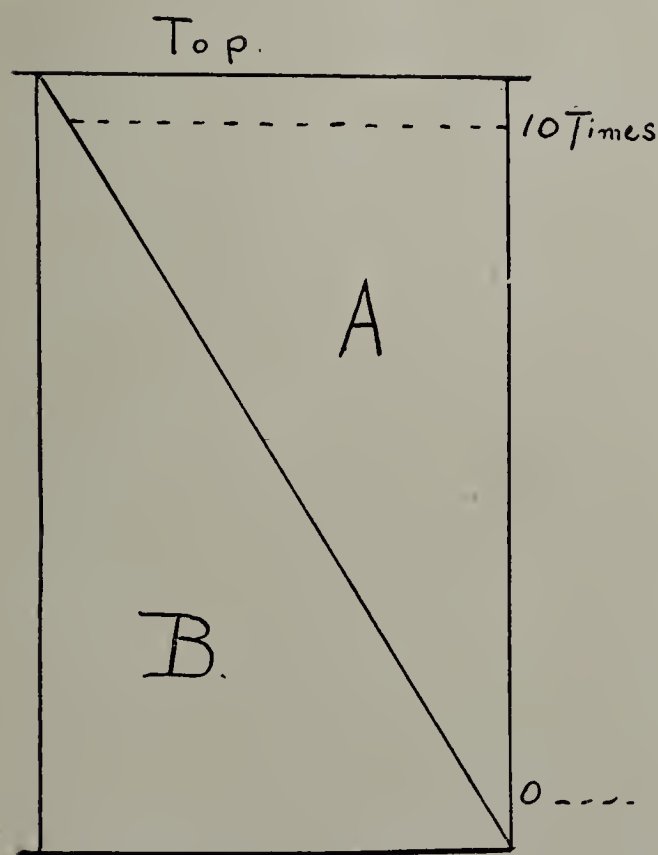
ed to manufacture a filter of this kind and applied for a patent, but found that the idea had previously been patented and as the holder of the patent is not manufacturing his filter and refuses to allow any one else to do so, no one seems to have been benefited.

I was lucky enough to receive one of these filters as a gift, but recently wanting one graduated from 0 to 5 I found they could be made, with so little trouble and expense, that it occurred to me that others might like to experiment, along the same lines.

By the accompanying diagram, you can see the whole idea at a glance. "A" a prism of yellow 10 times filter glass and "B" a prism of white glass cemented to "A" which is necessary to obtain a plane surface and overcome the effect of the prismatic coloring, that would be caused if "A" was used alone.

Any ten times ray filter, that is adapted to the brand of plates or films to be used, can be used as a foundation for a filter of this kind. Remove the glass yourself or take the whole thing to some good optician and explain to him that you want the yellow glass ground into a prism, with the narrow edge as fine as possible and the wide edge not reduced any more than absolutely necessary. Then have a prism of white optical glass made, exactly corresponding to the ray filter.

To cement these glasses together; warm both and then place a couple of drops of pure Canada balsam in the center of one of them and press firmly together, until all of the surplus balsam exudes from the edges. Tie tightly with heavy thread and lay away for twenty-four hours to dry.



After being dried they can be put back in the original mounting and I would suggest that the deepest part, or top, be plainly marked on the case, for in looking at the sky, or any object that is not perfectly white, it is rather difficult to distinguish the light and dark portions.

Not only will this filter give fine cloud values, on the same plate with a correctly exposed landscape, but it will be useful in photographing interiors, where the light is all coming from one side and can be used in portraiture, or any other class of work, where it is an advantage to tone down, either the top, side, or bottom.

As I said, earlier in this article, I have just had one made, from 0 to 5 for use

with the conditions last mentioned and it is likely that other combinations will be found useful.

The brand of plates, to be used with this filter, for cloud negatives, is of course a matter of choice, but I personally prefer Seed's double coated L Ortho.

Before closing, I want to say just a word, with regard to exposure. This of course varies, according to the position of the sky-line. If the sky-line crossed the plate exactly through the center, five times the normal exposure would be correct, but if higher or lower than the center, the exposure must be varied to a greater or lesser amount. A few trials, however, will teach you more than a dozen pages of written instructions.

AN INEXPENSIVE RUBY LAMP.

BY JAMES RIGBY.



WHILE a great amount of attention has been given to the question of doing away with the dark room altogether, almost none has been devoted to relieving the amateur who sticks to his plates and must needs use the oily and smoky ruby lamp.

Where is the amateur who does not know the annoyance of beginning his development only to find his lamp going out leaving him in darkness at the most inopportune time and often leaving a collection of black specks all over his room and appliances, not to mention the smell and heat in the summer? The following does not pretend to inaugurate a photographic millenium, but it will show that the average amateur with a small amount of ingenuity can do away with most of these nuisances.

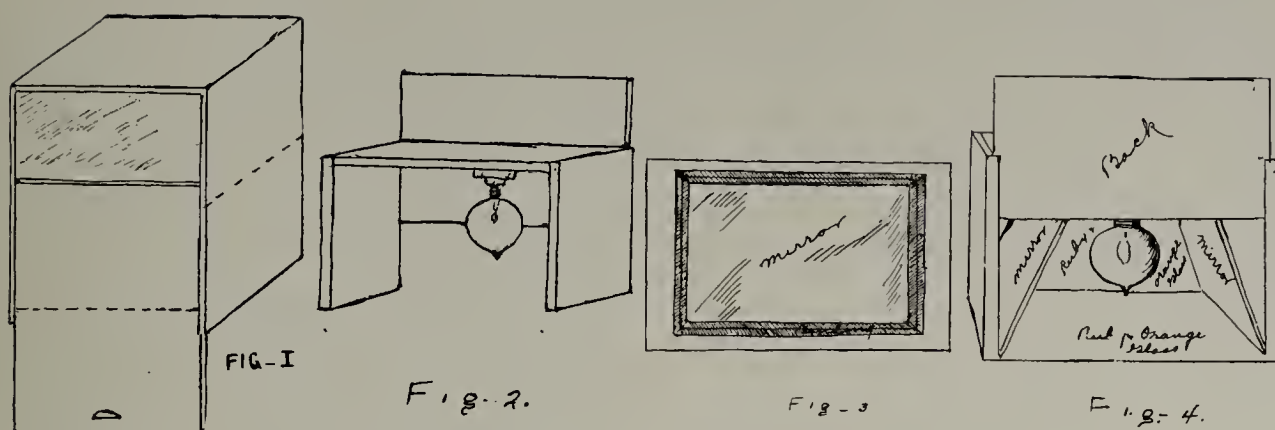
The materials necessary are as follows:

¼ lb. No. 18 Annunciator wire, cost about 10 cents; 1 one point switch, cost about 10 cents; 1 three candle power Edison base miniature battery lamp 4½ volt, cost 25 cents; 2 binding posts cost about 12 cents; 1 porcelain receptacle, cost about 8 cents; 1 4 x 5 Ruby glass, cost about 10 cents; 1 4 x 5 orange glass, cost about 10 cents.

Total necessary expenditure, 85 cents.

The batteries have not been included in this cost as one can get them for the asking at any of the automobile garages and they will be found to serve the purpose quite as well as new ones. Three dry batteries are required to run a lamp of 4½ volts.

Small wooden box about 4 inches wide and 2½ inches deep and which can be



cut to a length of $2\frac{1}{2}$ inches. Preferably one with a sliding top.

Small strips of passepartout binding.
Small piece of mirror.

In case a box of the dimensions given cannot be had any oblong box similar to figure No. 1 can be used in the following way.

The first step is to cut across the short way as shown by the dotted lines. This must be done carefully as the box may split, it is advisable to put a block of wood inside to resist the strain. The sawing having been completed detach the bottom from the section and you will have a box similar to figure No. 2. The sliding top must serve as the back of your lantern and the openings made by removing the bottom and the sawed portion serve as the ruby front and bottom of your lamp.

Next nail with small tacks the porcelain receptacle to the top of the box so that it will appear like a bench with the socket hanging underneath. In nailing the socket in position be careful to place the binding screws near the outer edges of the lamp so that they will escape coming in contact with the reflectors. Burn two small holes through the top just large enough to permit the binding posts to project through. These must be close to the screws on the socket. Then insert the binding posts and make the connection between the posts and the screws

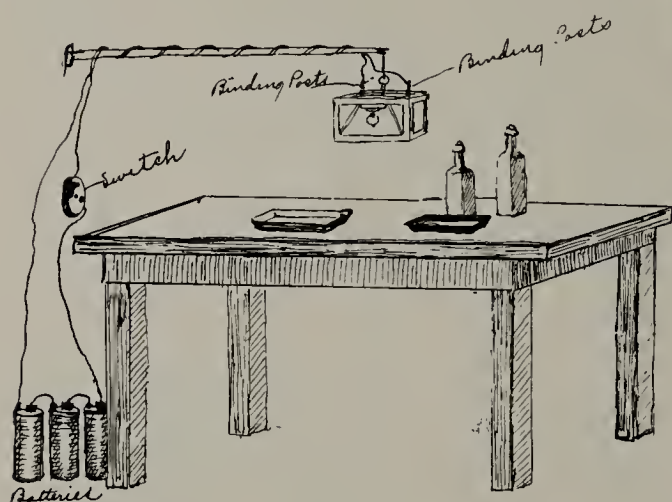
on the socket with a small piece of No. 18 wire.

Having made this connection take the back of your lantern which slides up and down in its groove, and cut a piece of the mirror just large enough to fill in the center as shown in fig. No. 3. This must be pasted down flat on the back with small strips of passepartout binding. This must slide up and down to permit you to take out your globe and insert a new one without disturbing the ruby front. After this cut two pieces of mirror to project slantwise from the bottom of the box to the edge of the socket (see fig. No. 4) one on each side thus making a line of reflectors throwing the light both down and forward. These are to be fastened in with the strips of binding the same as the back reflector.

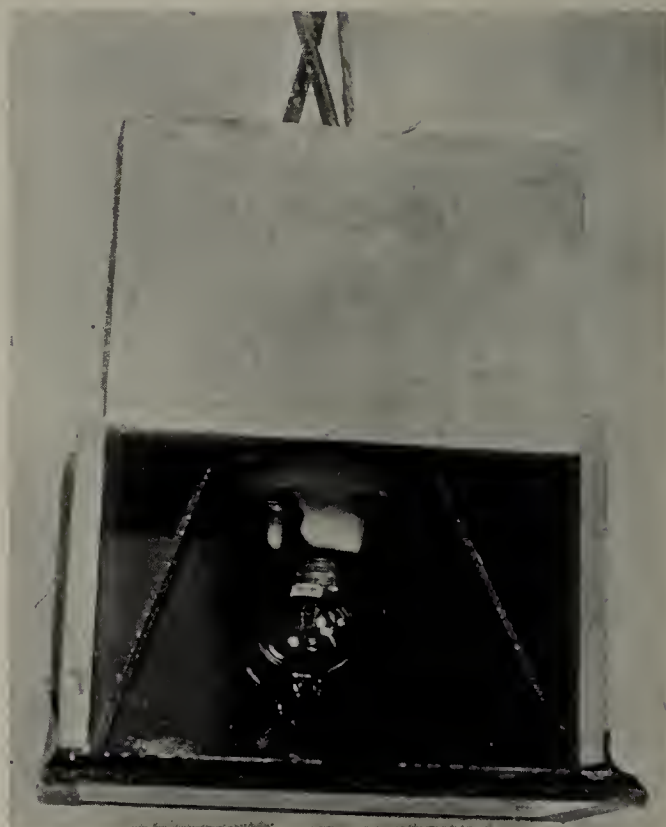
Your lamp will now resemble figure No. 4. Take your ruby and orange glasses and cut them to fit the front and bottom. If you have used the dimensions given for the size of the box you will find a 4×5 glass will just make two $4 \times 2\frac{1}{2}$ glasses. Now paste these on the front and bottom of the box in the same way the mirrors were pasted being careful to prevent any light from leaking through the joinings.

Insert the miniature globe in its socket and put the back in position and the lamp is ready to be put up.

It is advisable to get the dealer who supplies the bulb to test it before you take it to be sure it will stand three batteries, and if it should burn out you are not the loser. Every one is familiar with the method of connecting up dry batteries, but one must remember that the negative pole of one battery must be connected to the positive pole of the next battery or cell and that the further the batteries are from the lamp the more wire necessary and therefore more current necessary. It is wise to have the batteries under the developing table. In my case they are in a closet adjoining the dark room and not more than six feet



of wire is required to reach the lamp. The lamp can be either swung from a bracket or from the ceiling. It is better to put a small screw eye in the top so that a string can be attached, thus relieving the wires of the weight. As to the switch it should be so placed as to be accessible at all times and so that you can find it in the dark without knocking over all the bottles in the room. In connecting it, all that is required is to cut one of the supply wires to your lamp and connect one end to one of the screws on the switch and the other to the remaining screw so that the turning of the knob will complete the circuit.



My lamp built on this plan has been in frequent use for the last six months and has been found very convenient, especially when the plates have been put in the tray or tank, it can be turned out thus leaving them in no danger of fog, and can be immediately relighted on the smallest notice and it gives neither heat, grease, nor smoke. Figure No. 5 is a diagram of the lamp completed.



Editorial Notes



CORRESPONDENT makes the following complaint regarding our print criticism: "You tell us wherein our pictures are bad and how they might be improved, but what I want to know is how to get good pictures in the first place." That is just what we all would like to know, and just what we are all striving for, and could we furnish this panacea for all photographic ills, we couldn't keep the presses running fast enough to supply the demand for copies. On the other hand, if we could always obtain just what we wanted first off, wouldn't picture-making become a bit monotonous, and wouldn't we soon give it up for something more exiting? Half the pleasure of any labor or recreation lies in the fact that skill and gray matter are a necessary adjunct to good results. Achievement without effort is not worth while. There are very many poor photographs produced, and aside from the maiden efforts of the novice, the poor results can usually be traced to pure carelessness. Perhaps, the manufacturers, with their progressive methods have so simplified the mechanical part of picture-making that the amateur is apt to throw the whole burden on their shoulders, and trust to luck to help him out. With modern apparatus and methods, the production of technically good negatives and prints means only the following carefully of the simple and explicit directions supplied with the goods.

The production of *pictures* is an entirely different matter. Here the manu-

facturer can not help you, he *can* and *does* put the brains and experience in the goods he sells you, but he cannot go further, he cannot produce a camera that will refuse to make an exposure on an inartistic subject, or one that will give just the right exposure for every subject. Reams and reams of good paper have been covered with articles dwelling on every phase of the after processes in picture-making, and the photographic publications are full of them, and in most all instances have been clearly written by men who know.

So after all it is only a question of study and your personal ability, to absorb and utilize the knowledge that is so lavishly offered you. If you have the ability to understand, and to create from your understanding, and to *work* carefully and thoroughly, you can make *pictures* not every time, but sufficiently often to make the game worth while.

* * *

We sincerely trust that the 1908 Advertising Contest of the Eastman Kodak Company will meet with the success it deserves. This contest open to both the amateur and professional, offers a splendid chance for the photographer to show his creative and artistic ability. Both the amateur and the professional have an equal chance. The professional may have the advantage in his softer and more easily regulated studio light, but the amateur will possess the advantage of working under more natural conditions, and with a wealth of material for composition that the professional will lack.

We would suggest studying the advertising sections of the magazines; here you will find an idea of what can or may be used, how a picture appears when surrounded by text matter, and placed next to other pictures. What the advertiser needs is a picture that will create a demand for his goods, one that will cause a pleasurable sensation, and compel the glance of the reader to follow the text with the picture. Surrounded as it will be by other pictures and other advertisements, all designed to be noticed and read, it follows that the picture must

be forceful, either in beauty of design, or in strength of masses and shadows. It must be simple and tell its story at a glance without wearying the eye with a mass of useless detail.

Don't wait till summer comes to make your prize winners, begin now—right in front of you to-day may be the elements for a successful picture that will be gone to-morrow. The rewards are truly generous, and well worth making for, but even were they trivial, the educational value to you in attempting the effort will be more than well worth while.

AN ACID DIAMIDOPHENOL DEVELOPER.

BY HENRY F. RAESS.



AN organic reducing agent capable of being used as a developer in an acid medium is certainly a novelty. We have the ferrous oxalate developer which is used in the presence of an acid, but this developer is in no way related to any of the well-known reducing agents used for developing dry plates, and so cannot claim to be the exception to the rule. G. Balagny began his experiments with diamidophenol with sodium bisulphite in 1904, and in 1905 received a gold medal at the exposition held at Liege for his discovery. His experiments and results are contained in an interesting book of 84 pages, *Monographie du Diamidophenol en Liqueur Acide*, by G. Balagny, 1907, Published by Gauthiers-Villars, Paris, France, price, 2 fr. 75 cents. It contains a full description how to use this developer for all kinds of plates and developing papers. When this method was first published it attracted a great deal of attention and much skepticism was expressed as to the probabilities of this method yielding sat-

isfactory results. Among those who tested this method, was the Editor of *Apollo*, but his results were unsatisfactory. He requested his readers to notify him of their results (see *Apollo*, Vol. 12, No. 253, Jan., '06, page 304). The original formula calls for liquid sodium bisulphite, but on account of its better keeping qualities we have always used the dry salt, and with this we made our experiments. The developer will work even in the absence of sodium sulphite, but its action is too slow. After several experiments we adopted the following formula, the solution possessing an acid reaction:

English.		Metric
5 ozs.	Water	150.c.c.
1 dram	Sodium sulphite, c.p. cryst	4.0
1 dram	Sodium bisulphite, dry	4.0
15 grs.	Diamidophenol	1.0
Potassium bromide and iodide q.s.		

The potassium iodide is to prevent friction marks on glossy papers. The fixing and other manipulations are exactly the same as for any other developer. We developed some snap shots in the above solution, and also some in our

standard pyro so as to compare results. The plates in the acid solution required about twice the length of time to develop, but the detail and density were the same as with the pyro, only the color differing. Five hundred prints on glossy "gaslight" paper were developed with the above solution, using bromide and iodide. The results were the most brilliant we have ever obtained with any developer. The color, too, was different, it was neither gray nor black, but of a peculiar purple shade which was most beautiful. Our results were discouraging, the prints were flat, and had a disagreeable color. On account of the longer development required, it was thought that the prints required a longer exposure, but on making several tests, it was seen that the same or even a shorter exposure was

necessary than with the usual developer. Although the development is longer, there is no stain or fog. Commercial photographers will find this developer of special advantage where many prints have to be developed, as many prints can be put in the tray at a time, or where large prints have to be made.

"Gaslight" prints larger than 8 by 10 are difficult to manage when developed with the usual alkaline developer on account of its rapid action. With the above solution it becomes a pleasure. The developer may be used for many hours or even all day without becoming discolored. This peculiar property of diamidophenol (Amidol) is undoubtedly due to the presence and position of the NH_2 group. See also PHOTOGRAPHIC TIMES for Feb., '08, page 58.

MONTHLY FOREIGN DIGEST.

TRANSLATED BY HENRY F. RAESS.

Preventing Yellow Stains when using Ammonium Persulphate.

This reducer possesses the property of attacking the dense portions of the negative first. Unfortunately at times the reduction is very uneven and occasionally yellow spots or stains are produced which cannot be removed. On making some tests it was found that the cause was due to grease on the film, probably caused by the finger while handling the plates. Its prevention is quite simple. Soak the plate in water for about one-half hour, then go over the surface of the film with a tuft of cotton wet with some alkaline solution like sodium carbonate for instance. Then rinse the plate and place it in a 2.5% solution of ammonium persulphate. When the plate has been sufficiently reduced, place it immediately in a weak sodium sulphite solution to stop the further action of the reducer. The plate is then washed for twenty to thirty

minutes.—*Photographische Rundschau*, Vol. 20, No. 16, 1906.

A New Selective Reducer.

A patent has been applied for by H. E. Smith, in England on the use of "Erdman's salt," as a photographic reducer. This compound consists of cobalt potassium diamin nitrite ($\text{Co}(\text{N.H.}_3)_2\text{K.N.O.}_2$). It is claimed that this compound possesses a better selective reducing property than any of the well known substances used for this purpose. For use 8.0 gms. (2 drams) of the salt is dissolved in 100 c.c. (3 1-3 ozs.) of hot water, and when cold an equal volume of a 15% solution of sulphuric acid is added. Prints may also be reduced. One of the strange things with this method is that the thin portions of the negative appear to gain in strength.—*Photographische Rundschau*, Vol. 20, No. 16, 1906. *Apollo*, Vol. 12, No. 262, May, 1906.

BLISTERS IN CARBON PRINTING.



THE carbon process holds a position midway between what may be termed *straight* printing processes and those admitting control of values, such as gum bichromate and the oil-pigment process. With any process it is, of course, quite possible to control values by means of hand work on the back of the negative or by local shading of the negative during printing, but with gum and oil the values may be controlled during development while the picture, as a positive, is under the worker's hand. This kind of control is not possible in P.O.P. or platino-type, and only slightly so in bromide by means of subsequent local reduction. It is in this respect that carbon may be considered an intermediate process, for while the film of pigmented gelatine is nothing like so amenable to frictional reduction of depth as is the case with the film of pigmented gum, it is yet fairly easy to lighten tones which may be too heavy by the cautious use of a pledget of wetted cotton wool or a camel-hair mop. This advantage, together with the fact that a great variety of colors of tissue may be employed, and at the same time a number of different surfaces of transfer paper used as supports, makes the carbon process a very desirable one for the pictorial worker, yet there are difficulties in the way of successful working which require to be overcome.

The production of the right kind of negative may be dismissed as being common to all the printing processes. For each there is just that type of negative which gives the finest results, although the ideal negative is sometimes spoken of as being one which will print well in any process.

SELECTION OF TRANSFER PAPERS.

A good deal of difficulty may be avoided by a careful selection of transfer paper. If the surface is what is desired, choose a thinner paper in preference to a thicker one, the thinner paper being easier to saturate with water prior to squeegeeing down the exposed tissue. A fairly soft paper, too, is preferable to a very hard one, less vigorous squeegeeing being necessary to secure perfect contact over the minute inequalities of paper surface. The character of the gelatinous sizing should also be noted, and it is well to soak a sample of the transfer paper in hot water—say, at a temperature of 130 degs. Fahr.—and notice carefully how the gelatine behaves. After some little time the transfer paper may be taken out of the water and surface dried between blotting paper, and the gelatine rubbed with the ball of the finger. If it remains firmly on the paper it will probably work satisfactorily, but if it readily rubs up almost in a moist powdery way the transfer paper may be regarded with suspicion. The gelatine is poor, or has been allowed to remain heated for too long a time when the sizing has been done. Better a little additional sheen on the surface of the print than no print at all on account of blisters.

AIR IN THE TRANSFER PAPER.

Reference has been made to the necessity for saturation of the paper before squeegeeing down the tissue. With thin smooth papers fifteen to thirty minutes soaking in cold water is an ample allowance, but the air in a thick paper cannot be dispelled in so short a time, and with some of the thicker drawing papers a soaking of two or three hours is necessary. This expelling of the air is expedited by laying the sheet of paper on

the squeegeeing slab, allowing cold water from the tap to run on to it, and rubbing it over with the flat hand with some slight pressure. This not only dispels any minute surface air bells, but the pressure forces air out of the spongy paper. This may be done two or three times during soaking and immediately before putting down the exposed tissue. The soaking may be shorter if warm water, say 80 deg. Fahr., is used, but the transferring must naturally be done in cold water.

CONDITION OF THE TISSUE.

Blisters are of two kinds, large and small. Those due to air on the surface or to air in the substance of the paper plus a poor character of sizing are usually small—at all events, not bigger than a threepenny piece. But large blisters sometimes occur, so large and so numerous that almost half a print will come away from the support. These may usually be traced to the tissue rather than the transfer paper. Over-printing in the sun or too near an arc lamp so that the tissue becomes partially insoluble from the action of heat, stale tissue, tissue sensitized at home and dried in an impure atmosphere, any of which produce, at all events, surface insolubility, and prevent satisfactory adhesion of tissue and transfer paper. The same thing will sometimes occur where there are large areas of heavy shadow, especially if the negative is too strong and very full printing becomes necessary to secure detail in the high lights. In the last instance the remedy is obvious—softer negatives must be produced, and the existing negative either reduced with persulphate or the shadows softened by the aid of mineral paper and stumping sauce. In the other cases avoid heating the tissue during printing and take care to use only tissue which before printing is in a

perfect condition of solubility. This point may be readily tested by slipping a bit of the tissue into water of 80 deg to 90 deg. Fahr., when the gelatine should melt within half a minute quite freely.

DEVELOPMENT.

The usual instructions are to develop in water at a temperature of 110 degs. Fahr. With rough papers much greater safety is ensured by commencing with the water very much cooler—say, 70 degs. to 80 degs. If the tissue is in good condition, the negative not too strong, and the proof not overprinted, the back should readily peel away in a short time, and the temperature may be raised if and as necessary, but, of course, very gradually. Not only are blistering risks minimized by this method, but if printing is on the light side there is a better chance of saving the print, and the worker always feels that he has something up his sleeve in the way of increased temperature should that be necessary. The readier solubility of the gelatine, too, enables local lightening to be readily carried on, and a good deal may be done in the way of concentration and the introduction of accents without that risk of dragging away the film from the single transfer paper which exists more or less where printing has been carried so far that development at a much higher temperature is necessary.

Occasionally a transfer paper is met with which shows a tendency to blistering as soon as the print is subjected to a change of temperature, and with such a paper it is not possible to stop “bleeding” by slipping the print into cold water. As soon as development is seen to be complete, the print must be placed at once in the alum, and if this is quickly done there is not much risk of any “bleeding” being hardened and causing smeary markings.—*Photographic News*.

Items of Interest

PORTFOLIO OF THE 1907 KODAK ADVERTISING COMPETITION enables us to see at last just what has been accomplished in the way of utilizing photography along advertising lines. The purpose of the competition and the results thus far obtained are best expressed in the foreword to the portfolio:

"In announcing our 1907 Photographic Advertising Contest, we expressed the belief that there are men who can furnish us with photographs that are better from an advertising standpoint than anything that can be drawn.

"In our opinion that belief has been justified. We are still in the beginnings of this sort of work, but we have material with merit. It has cost us more perhaps than good paintings would have cost—but the pictures are pictures of real people. As the play is more realistic than the book, so are these photographs more real than paintings. And this very reality will help us tell the story of the Kodak with effect, will help us gain the attention and the confidence of the public.

"Another contest has already been announced. Still others will follow. These are not intended solely as a means of picture-getting for our advertising. They are intended to show what can be accomplished by the camera in the illustrative field. The artist of brush and pencil studies the requirements of publisher and advertiser and meets those requirements. The camerist, to be successful must do the same. His work must be natural, must have a purpose, must contain an idea, must tell a story. Such, we think, are the pictures in this little portfolio. Each, in its own way, convincingly suggests the Kodak idea. And that means good advertising.

"Photography is but in its beginnings. And in this, the field of advertising illustrations, lie great possibilities. Here is endless opportunity for art and technique, for creative genius and for profit.

Everyone interested in photography as a medium of expression for advertising ideas should study this portfolio with care, and will profit immensely thereby. The Eastman Ko-

dak Company courteously advise us that they will be glad to send to any of our readers who are sufficiently interested a copy of the portfolio prepaid on request. Address the Advertising Department, Eastman Kodak Co., Rochester, N. Y.

* * *

THE LUMIERE AUTOCHROM PLATES, we note, are now listed at prices that place them well within the reach of all photographers. The prices of screens, and screen holders have also been reduced. So here's your chance to experiment for yourself and learn something of the delights of color photography. Besides the manufacture of color plates, The Lumière N. A. Co., Ltd., have an extensive line of papers and chemicals for your selection. We believe they also make the largest variety of plates of any single concern in the world. Among them the New Sigma Plate is guaranteed by the manufacturers to be faster than any other plate made. A full description of the various Lumière products may be obtained from the booklets issued by the company. The address is Lumière N. A. Co., Ltd., 11 West 27th street, New York City.

* * *

IT WOULD HARDLY SEEM POSSIBLE to simplify the Premo Film Pack System and yet here in reading the latest Premo Catalogue, we find the seeming impossible has been accomplished in the New Premo Developing Tank.

"It provides for the development of Premo Film Pack films with the minimum of care and labor and with the assurance of absolute uniformity of results. Simple and inexpensive, it puts the veriest beginner in photography on the same plane in the development of his picture, as the most experienced amateur."

"The Premo Developing Tank consists essentially of two pieces—a metal receiver or frame for the films, and a tank with cover for the developing fluid.

"The receiver is divided into twelve com-

partments,—in the 5x7 size, six—each accommodating one film. As the film is taken from the pack, it is held between the thumb and fingers, slightly bent from top to bottom, and slipped into its respective compartment. When all the compartments are filled, the receiver is placed in tank, which has been previously filled with developer, the top replaced and the films left to develop for a certain specified time. No further attention is necessary, excepting to turn the tank, end for end, when half the time of development has elapsed.

"At the expiration of the full time, open the tank, take out receiver, remove films, place them in a tray of water for a moment, then transfer to the fixing bath. Development is completed. Rinse out receiver and tank and set them aside to dry.

"That's all there is to it. The films will be found perfectly even and uniform in development. Time and instantaneous exposures from the same pack, made under varying conditions, will be found to be developed to their full value.

"The operation of removing films from the pack and loading the receiver is done, of course, in a darkened room by the light of a ruby lamp.

"During the day any darkened closet will suffice. To load the films in receiver, the operation will take only two or three minutes, and as soon as the top is placed on tank, it may be brought out into any light and left until development is completed."

There are also a number of other new things in Premo Construction which are ably described in the catalogue. It may be had free on request to the Rochester Optical Division, Eastman Kodak Co., 45 South street, Rochester, N. Y.

* * *

THE BERLIN ANILINE WORKS, 213 Water street, New York City, through their versatile advertising manager, Mr. Harry Hall, have gotten up a compact little booklet of "Agfa" Metol formulas that will appeal strongly to every busy photographer. It just fits nicely in your pocket and contains formulas for all the well-known plates, papers and films on the American market. This is one of those useful little companions it is well to have around when you are looking for a friend in need, so write for a copy. If you have never tried the "Agfa," Metol products

it would pay to get acquainted with them, and order a trial lot from your dealer.

* * *

WE HAVE JUST LAID DOWN AFTER READING WITH GREAT INTEREST, a copy of "A Triple Alliance in Optics," which goes into the particulars of the various reasons which inspired the fusion of business interests of the Bausch & Lomb Optical Co., and the Bausch, Lomb, Saegmuller Company, of Rochester, and the Carl Zeiss Optical works of Jena.

"This unification is the practical expression of a desire to concentrate the knowledge, skill, experience, and energy of the leading optical firms of two continents. Under the new regime the Bausch, Lomb, Saegmuller Company becomes an integral part of the Bausch & Lomb Optical Company, losing its identity as a separate corporation.

"The Zeiss Works become members of the new corporate organization, and the intention is to manufacture certain products of the Jena Works in the United States. While the interests of the firm of Zeiss in the United States therefore become one with those of the Bausch & Lomb Optical Company, yet the Zeiss Works are legally bound to maintain in perpetuity their entity at Jena in accordance with the conditions laid down by Professor Abbe when providing for their future, and the laws of Germany have made his intentions binding.

"The new company, to be known as the Bausch & Lomb Optical Company, thus unites the progressive spirit and integrity, the scientific genius and ingenuity of the firms allied.

"The founders, in aiming at the ideal and utilizing the finest intelligences for its realization, have been exponents of a new industrial spirit. This spirit, while it does not lose sight of or neglect the success of the individual, aims to subserve the good of mankind as a whole. To give to science the best instruments that the learning and imagination of the physicist can devise and the skill of the workman fabricate, is surely to advance the welfare of humanity. This is the ideal of the Bausch & Lomb Optical Co. under its new association."

The struggles and experiences of the founders of the three companies going into the merger, read like a romance. Ever present with each of the dominant spirits was an ideal of manufacture which after years of tire-

less perseverance finally covered with success, and have made for the product of their factories a reputation that is world wide.

* * *

THE DEMAND FOR CYKO PAPER, ANSCO FILM AND OTHER ANSCO PRODUCTS is so large that it may be interesting to know that these products are distributed at wholesale from factories at Binghamton, N. Y., and the following branch offices of the Ansco Company: New York City, N. Y., 40 E. 21st street; St. Louis, Mo., 407 No. Broadway; Cincinnati, Ohio, Andrews Bldg., So. East corner 5th and Race streets; Boston, Mass., Paddock Bldg., 101 Tremont street; and also from the following wholesale agents: Burke & James, 118 Jackson Bldg., Chicago, Ill.; Western Photo Supply Co., 780 Ellis street, Houston, Texas; Gailey Supply Co., 1302 Second Ave., Seattle Wash.; Woodard, Clarke & Co., 230 Washington street, Portland, Ore.; Baltimore Photo Supply Co., 211 No. Howard street, Baltimore, Md.; Schaeffer Photo Supplies, 1011 Capitol Ave., Houston, Texas.

* * *

HOW THE FAMOUS JENA GLASS IS MADE.—Every photographer knows of the Jena glass, and of the great improvements which it has made possible in photographic lenses. But while the name is a household word, very few have any idea of the methods of its manufacture, so that the outline of this, which we quote from "The Prism," will no doubt be welcome to all who possess an interest in the tools they use.

The Jena glass works originated in successful efforts to satisfy by means of new glass fluxes the increasing demands for excellence in refracting instruments. The glass must be colorless for the fine lens. It must be strong. It must not tarnish with exposure to the weather. It must not be clouded, and crystallization and bubbles must, so far as possible, be avoided in the melting. Elements tending to evaporate in the melting produce veins. Boric acid lengthens the red end of the spectrum. These are a few of the facts which must be taken into consideration in compounding the glass for the melting pot.

The first stage in the process is the careful drying of the melting pot, which is then very gradually raised in temperature for four or five days until it is red hot, when it is put in the melting furnace. After five or six hours more heating, it is up to the melting temperature of glass, and the pieces of glass (remaining from former meltings, and known as "cullet") are put in, melted, and the inside of the crucible glazed, with a great iron ladle. Then some of the "batch" is introduced little by little, a fresh layer being put in as soon as the first is melted, until the crucible is full. The whole thing weighs when full from 15 to 20 cwt.

The next stage is known as planing or fining. The mixture is kept at a high temperature six or eight hours, as a rule. If kept too hot the crucible is attacked and clay is absorbed; if too low, the bubbles run. The firing is then moderated, the surface scum containing clay particles is removed, and a red-hot stirrer of fire clay, in the form of a hollow cylinder ten or twelve centimeters in diameter, is placed in the glass and left for an hour, till the bubbles forming on it rise to the surface.

The handles of the stirrer is made of a long iron tube, kept cool by a current of water. With this the mixture is stirred, incorporating the whole mass, until, by blowing small flasks with a glass blower's pipe, it is seen that the glass is clear. When the cooling is so far advanced that the stirrer can only be moved with difficulty, it is taken out.

The crucible having been lifted out of the furnace and put on a fire-brick platform, it is left thereon to cool for from half to three-quarters of an hour, and is then put into the annealing furnace.

The mass is allowed to cool completely down in this, and flies into many pieces, large and small. The best pieces are selected and remoulded. To this end the glass is reheated in fire-brick moulds till almost melted. A long tunnel-shaped oven is used for this, red-hot at one end and cool enough at the other to allow the moulds to be pushed in. Then the moulded glass is put in the cooling kiln ten or twelve days. This kiln will contain 20 or 30 cwt. of glass in moulds. If one-fifth of the whole mass turns out to be fit for use it is considered satisfactory.

Notes and Extracts

OFFICIAL ANNOUNCEMENT OF THE INTERNATIONAL PHOTOGRAPHIC EXPOSITION, to be held at Dresden next year, have reached this country, and copies of the English program may be had on application to Frank Roy Fraprie, American Commissioner, 6 Beacon street, Boston, Mass. Entry blanks printed in English, German, and French, will be issued in about two months. The closing date for the reception of American pictures has not been definitely determined,, but will probably be about December 1st. The exposition will open May 1st, 1909, and remain open until October 15th.

About one sixth of the total floor space of the exposition building will be devoted to amateur photography, and a similar amount to professional photographs. This is about 2,500 square yards in each case, and will give room, if necessary, for the installation of more than five thousand photographs in each class. This does not seem excessive, when we remember that the entire achievement of photography is to be represented, not merely the work of a single year. Even at this rate, the number of American photographs in each class cannot greatly exceed five hundred. It is expected that every American pictorialist will send his or her best pictures, whether made to-day or twenty years ago. It is to be hoped that the camera clubs of the country will make special efforts to be represented by collections of their members' work.

Amateur work will be divided into classes as follows: Portrait, Groups, and Genre Pictures, and Landscapes. The awards will be trophies for conspicuous merit, and plaques as class prizes. The professional classes will be the same, with the addition of one for technical and commercial photographs. The prizes will be trophies for general merit, and diplomas for gold and silver medals as class prizes. The award of "hors de concours" may be made as the highest possible distinction.

PHOTOGRAPHS ON APPLES.—It is a simple matter to print photographs upon the ordinary

red apple, the tomato, and smooth-skinned pumpkin, if one goes about it in the right way. In addition to the process being most simple, there is no expense incurred, not even for so cheap a chemical as hypo, as no chemical or water is required, while the resultant prints can only be said to be as permanent as the support on which the image is formed. The skin of an apple, tomato or pumpkin, particularly at a certain stage of its ripening, bears a strong resemblance to our photographic plates and printing paper, for the reason that it is sensitive to light. It is this sensitiveness to light that causes the side exposed to the sun to burn red or yellow, and, as one can often notice, where a leaf intervenes so as to cut off the light close to the pumpkin, apple, or tomato, it will print an outline of itself, a silhouette as it were, in green upon the red or yellow ground. It was through noticing this that I conceived the idea of printing from a negative upon the same surface. My first attempt was with apples. I first hunted out an apple having a leaf close to its surface, placed a piece of glass beneath the leaf and on it cut my initials with a sharp knife. I then removed the glass and pasted the leaf firmly to the apple so it would not be blown away by the wind, and left it for a week.

At the end of that time, I took the apple, soaked off the leaf, and found my initials in bright red on a light green ground having the outline of the leaf. My success prompted me to try an actual photograph, or one printed from a photograph negative. To this end, I selected some apples of the red variety that were yet green and encased them in bags made of the black paper in which plates and paper are usually packed. These bags were left on for ten days to exclude the light and add to the sensitiveness of the surface. At the end of this time the bags were removed and film negatives were pasted in position by using the white of an egg. This white of an egg I found later to be the only adhesive that would not show in the print. In order that all except the image when printed might be green,

the apples were again inclosed in the protecting bags, this time an opening a little larger than the portrait being cut opposite the film. This acted much as would a vignetting device over a printing frame, and greatly enhanced the results. Other apples were given negatives made by scratching monograms, initials and sketches in spoiled films with an etching knife and attached in the same manner, and provided with the same protection for the remainder of the surface. The richness of color and wealth of detail that can be secured in this way is really astonishing. I am tempted to say that the results are superior to any that could be obtained on photographic papers. A week was allowed for printing. The fine, deep red of the picture upon the delicate green of the ground must be seen to be fully appreciated. Only nature could give just the exact tones of the two colors that would harmonize so perfectly. The method for printing of tomatoes or pumpkins is the same as for apples. I hope that others will try the experiment, and I can assure them that they will be amply repaid for their trouble.—From "Nature and Science" in April *St. Nicholas*.

* * *

HOW TO IMPROVE WEAK NEGATIVES.—A reprint appears in the "Transactions of the Edinburgh Photographic Society" of a lecture delivered by Mr. A. J. Garwood on the intensification and reduction of negatives. The following is a brief but helpful extract from the reprint dealing with the intensification of weak negatives by means of mercury:

The surface of the negative should be quite free from all dirt or grease, caused frequently by incautious handling of the film with greasy fingers. To remove this the negative may be placed in a bath of dilute ammonia, say 10 minims of the .880 solution to the ounce of water, and its surface gently rubbed with a tuft of cotton wool, then finally washed in running water for ten to fifteen minutes. If ammonia is not at hand a little of the No. 2 solution of an alkaline developer will answer the same purpose.

Some authorities advocate the carrying out of all the processes of mercurial intensification in the darkroom, whilst others again say that this is unnecessary. For my own part I invariably do this work in diffused daylight, and have never been able to see any difference between a negative treated in this manner and one which has been done in the darkroom.

The bleaching agent usually employed in

mercurial processes is the bichloride of mercury. I notice that most of the published formulæ for this give a saturated solution of the salt for the purpose. This, in my opinion, is open to the objection that there is always some risk of undissolved particles of the salt being carried over and settling on the plate, and if these are not immediately removed, spots, sometimes opaque, at others transparent, will occur. Personally, I prefer the following formula, which is one I can with every confidence recommend, viz.: Bromide of potassium, 100 gr.; bichloride of mercury, 100 gr.; water, pure, 10 oz. The mixture should be shaken to assist solution, and it should then be filtered. The result should be a clear, colorless liquid which will keep for years, and may, with occasional filtrations, be used over and over again. It is a dangerous poison, readily absorbed by the skin, and one's fingers should therefore not be unnecessarily dabbled in it. If, on use with any particular negative, the solution should turn milky, it is a sure sign of the presence of hyposulphites, and the discolored portion of the liquid should be discarded.

The negative to be treated is placed in this solution, and with gentle rocking allowed to remain until it is bleached right through, and appears of a white or greyish white color on both sides. It should now be washed in gently running water for not less than half an hour, and is then ready for darkening. There are innumerable methods of darkening the plate. I may say in passing that think where a good many fail at intensification is in tying themselves to one particular method of darkening the plate, with a frequent result of the negative being made too dense. I think I shall be able to show that there is considerable choice in this direction.

Where only a slight increase in density is required, the bleached negative may be placed in a 10 per cent. solution of soda sulphite until it is blackened right through, and should then be well washed and dried. I am quite aware that this method has, within the last few years, been the subject of rather severe attacks, but having used it with almost unvarying success for the last fifteen years, my confidence in it is by no means shaken. One of the defects urged against it is that its effect is slight. Quite so, and here in many cases is its great advantage. The solution must be quite fresh, and it is advisable not to use the same dose more than once, or staining may result.

If the effect produced by the soda sulphite proves insufficient the negative may be rebleached, and after thorough washing, placed in an ordinary ferrous oxalate developer, until, on looking through it, it appears to be sufficiently intensified, making allowance for the fact that its density will probably decrease a little on drying. If the action is still found to be insufficient, the whole of the processes of rebleaching, washing, and darkening may be repeated for the second, and even third, time, using ferrous oxalate for the redeveloper in each case. In this respect this method differs from the other mercurial methods. Although by no means the easiest of them, it is undoubtedly the best, and has the support of all scientific authorities as being permanent. Its action, which may be stopped by simply removing the negative from the solution and well washing it, is slow and well under control. By its successive repetition a good printing negative may be literally built up from a mere "ghost," provided always that detail, however faint, exists to start with. The most scrupulous cleanliness is necessary to ensure freedom from stains. Any trace of pyro in dishes, or on fingers, will cause the most horrible ink-like stains, which are impossible to remove.

For those who do not use a ferrous oxalate developer, a simple way of making up a small quantity of this solution is to refer to a table of solubilities, given in all good textbooks, and, by its aid, make up two saturated solutions, one of neutral oxalate of potash and the other of protosulphate of iron, and, after filtering each of them, take six parts of the potash solution, and add to it one part of the iron solution, taking care to mix them in the order given, or the iron will be precipitated in a muddy mass.—*Focus*.

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RODINAL THE BEST STAND DEVELOPER.—According to Dr. Mebes, the best stand-developer is prepared with rodinal, and he recommends the following formula, which originated from Meydenbauer:

Rodinal	1½ drs.
Saturated solution of potassium carbonate	1¼ drs.
Water	35 ozs.

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ADUROL AS A DEVELOPER.—Adurol, a chlorine substitution product of hydroquinone, possesses certain advantages over the latter, and

answers well as a one-solution developer, a good formula for which is as follows:

Potassium carbonate	3 ozs.
Sodium sulphite	4 "
Water, to make.....	10 "

When dissolved, add—

Adurol	½ oz.
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This gives a concentrated solution, one part of which is diluted before use with three to five parts of water, according to the character of the negative desired.

As adurol gives rather intense blacks with bromide papers, it is sometimes advantageous to combine it with metol. The following two-solution developer is suggested as being reliable:

A. Metol	10 grs.
Sodium sulphite	160 "
Adurol	24 "
Water, to make.....	4 ozs.
B. Potassium carbonate.....	200 grs.
Water, to make	4 ozs.

For use, sufficient solution B is added to A, by successive small additions, to bring up the image to its requisite density. For example, one might start with a mixture of three parts of A and one of B, and work tentatively for a minute, and then add more B if necessary.

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WHITE INK FOR WRITING TITLES ON LANTERN MASKS may be made by mixing oxide of zinc, sulphate of barium, with weak gum water, to convenient consistency. Moist water color, or Chinese white, may also be applied with a fine brush.

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SORE FINGERS FROM THE USE OF METOL.—Many workers who use metol developer would welcome a sure cure for the sores that sometimes arise on finger tips and between fingers after using this chemical. The obvious remedy is not to dabble the fingers in the solution, but use plate holders or india-rubber gloves or finger-stalls to keep the fingers dry. Rubbing lanoline into the skin before developing has also been suggested. This will prevent the poison entering the pores of the skin. As a remedy, and to allay the irritation, the following has been suggested: Carbolic acid, 1 dr.; Wright's coal tar solution, ½ oz.; glycerine, 3 drs.; water, 12 ozs. The following is given in an American con-

temporary by a writer, who says. "I have suffered severely from metol poisoning and also platinum poisoning during several years, at one time having to give up my favorite metol-pyro developer. I have, however, returned to its use, having found a remedy that is efficient, in my case at least. It is as follows:

Mutton tallow	3	ozs.
Flour sulphur	1/2	"
Glycerine	1 1/2	"
Carbolic acid	30	drops

The acid should be added last, drop by drop, while the whole mass is thoroughly worked over with a spatula on a clean piece of glass. I use an old 11 by 14 negative for the purpose. This makes a rather thick salve that should be well rubbed into the hands at least once a day."

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CLEANING ROUGH PAPER PRINTS.—Platino-type, carbon, or bromide prints on rough paper that have become soiled or dirty may be restored to their original brightness as follows: It should be remembered, however, that any "working up" or retouching there may be on the print will probably be removed at the same time: Make a cupful of thin paste with ordinary flour and cold water. Spread this over the surface of the print with a soft brush, and then place it on a sheet of clean glass for five or ten minutes. Then let a spray of cold clean water play upon the print until all the paste is washed away, and it will be found that all dirt, etc., that had collected in the pores of the paper has been removed also.

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SURFACE MARKINGS AND DIRTY EDGES ON GASLIGHT POSTCARDS.—The usual method recommended for the removal of these markings is to apply friction with a pledget of cotton wool soaked in alcohol. A correspondent from Ilminster writes to tell us how he deals with this fault. As it will doubtless prove useful for other readers we give it here. The following solution is made up: Potassium iodide, 30 grs.; iodine, 3 grs.; water, 10 ozs. Take one part of this solution and four parts of water. Immerse the print in it, but do not leave for more than one minute, or the image may be attacked. Then transfer to clean plain hypo bath of ordinary strength for five minutes and rewash. The print should be free from hypo before using the above. The

prints after treatment are delightfully bright and clean in the high lights and round the margins.

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TINTING EFFECTS IN LANTERN SLIDES.—When it is desired to entirely color a slide the effect is best obtained by staining the gelatine in a suitable dye, such as Congo red, Manchester yellow, Malachite green, Hoffman's blue, methyl violet, or Bismarck brown. These dyes are easily obtainable from Merck's or Zimmermann's, and may be dissolved in water or alcohol. If too dark, the excess may be removed by soaking the plate in the uncolored solvent as the case may be. Ordinary colored glass is generally too crude in color for pictorial effect. But an unexposed plate, fixed, washed, and then tinted, may be used as a cover glass.

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THE ROMANCE OF THE KINEMATOGRAPH is the title of a very interesting article in the March number of *The London* magazine. Mr. Chas. M. Sheldon, the author, illustrates his remarks with bioscope pictures, and some full-page drawings showing perils and amusing incidents in the life of the camera operator. We note that Mr. H. Howse is depicted suspended by ropes over the crater of Vesuvius, watching the molten brimstone bubble-up from the hideous cauldron of smoke and steam. We agree with the writer when he says "Life as depicted by the bioscope is subject to none of the restrictions that obtain in the world of reality. The machine is an accurate and faithful portrayer of things as they are; it will reproduce every movement with perfect fidelity. But, if it chooses, it can wield a magician's wand; it can annihilate time and space; it can show pictures of things which could never have happened, but which apparently must have happened, as they have been photographed, and are not merely the fancies of an artist's brain. See this man dwindle to the size of a rat, and swell to the huge proportions of St Paul's Cathedral. Everything around him remains its natural size. Is it a scene from "Alice in Wonderland"? Not at all. It is a photograph taken by the camera that never lies. It is a real man. Watch this horse eat a baby before your very eyes. They cut the horse open, and you can see its ribs. They pull out great bundles of hay, and find the baby. It is a real horse, real hay, a real baby, and yet —?"